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SOUTHERN BLIGHT OF PEPEROMIA

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Peperomia (Peperomia obtusifolia A. Dietr.) is a very popular ornamental foliage plant. P. obtusifolia, a member of the pepper family (Piperaceae), is native to South America and is but one of the relatively few species grown as an ornamental of the more than 500 species that make up the genus (5).

The remarkable increase in popularity of peperomia is due to many reasons: it is easy to grow, of lasting beauty and does not require special care; it is available in a wide array of types of growth habits, leaf forms and patterns, and textures to suit almost any need or fancy; it is tolerant to varying temperatures, light conditions, crowding, and requires no special soil; it can do well without strict regimes of fertilizing and watering; and it is easily propagated. In general, however, lovers of peperomias as house plants might consider the following conditions for their care and growth, which may vary in some degree with different species: bright light, indirect or filtered; almost any soil type which allows for good drainage; any complete houseplant fertilizer every 6 – 8 weeks, but less often in winter; temperature around 70 F (21 C); and watering around every 3 – 4 days, allowing the soil to dry out slightly before waterings. Peperomias can be used in any number of different ways, depending on the species and variety—as a pot plant, in terrariums, as small indoor shrubs, hanging baskets, and in some cases, complementing floral arrangements (9).

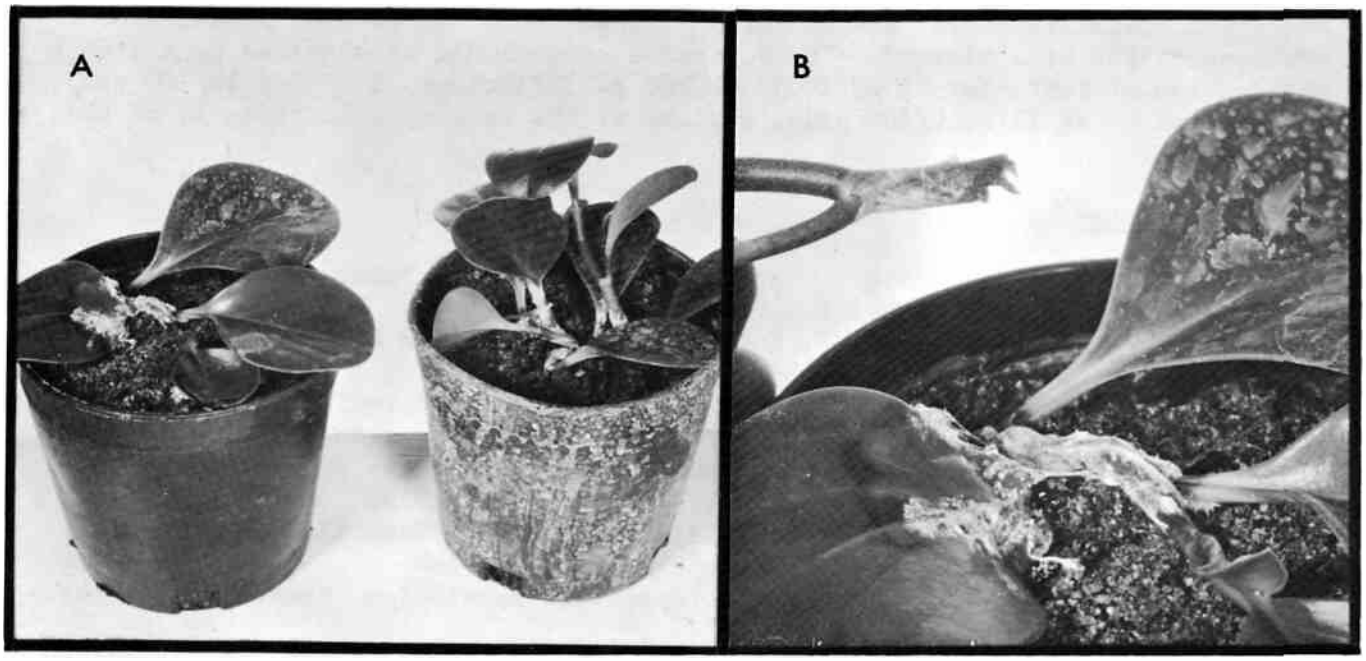

Fig. 1. Southern blight of peperomia caused by Sclerotium rolfsii Sacc.: A) mycelial mats of the fungus on stems, petioles and leaves, commencing at the soil line; B) enlargement of same.

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Peperomia is also economically important to foliage growers as is reflected by its annual sales value of 2.5 million dollars in Florida — a ten-fold increase over the last 4 years (Dr. C. N. Smith, personal communication). Peperomias are relatively free from disease, but the diseases of importance are crown rot incited by Phytophthora parasitica Dast. (8), edema (1,7), ringspot (6), and southern blight (2,3,4).

Sclerotium rolfsii Sacc., the causal fungus of southern blight, is well recognized in affecting a very extensive number of host plants (2,3,4). On peperomia, southern blight is particularly destructive during vegetative propagation in greenhouse culture when environmental conditions are very warm and wet.

SYMPTOMS. Southern blight is characterized by a light brown to tan, water-soaked rotting, usually beginning at the cut ends of unrooted cuttings, or on stems of rooted cuttings and established plants at the soil line (fig. 1). Under optimum conditions for disease development, the infected areas on cuttings or stems enlarge rapidly and cause complete rotting and collapse. The infected tissues are soon covered with thick, cream-colored strands of fungus mycelium intertwined with small but easily visible brown sclerotia. The sclerotia are overwintering propagules of the fungus that are very similar in color, size, and shape to mustard seeds. Infected rooted cuttings occasionally collapse at the soil line due to the weight of the top growth. Leaves in contact with infested soil exhibit the same type light brown to tan, water-soaked infection which may progress to the point of complete leaf collapse.

CONTROL. Sanitary horticultural practices which would include use of non-infested soil, prevention of contamination of propagative and growing areas, and use of healthy propagative stock are of cardinal importance in keeping losses due to southern blight at a minimum. Good disease control can be obtained by a drench application of Terraclor 75 WP (0.75 lb/100 gal), Plantvax 75 WP(0.5 lb/100 gal), and Demosan 65 WP (1.5 lb/100 gal), applied at the rate of 1^-2 pt/sq ft of soil surface (3).

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